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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/545,100	04/06/2000	Jean Louis Calvignac	RAL9-1999-0141US1	9250

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EXAMINER

KINDRED, ALFORD W

ART UNIT	PAPER NUMBER
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2163

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DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/545,100

Applicant(s)

CALVIGNAC ET AL.

Examiner

Alford W. Kindred

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 and 36-49 is/are allowed.
- 6) ☒ Claim(s) 15-32 is/are rejected.
- 7) ☒ Claim(s) 33-35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/19/04 & 11/09/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: Application, filed on 04/06/00.

Allowable Subject Matter

2. Claims 33-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach and/or suggest "an embedded processor complex including a plurality of protocol processors . . . providing high speed pattern searching, data manipulation, and frame parsing . . . store a plurality of data structures that represent at least one search tree . . . a direct table, a pattern search control block, a compare table and leaf . . .", combined with "a programmable color key register to enable sharing a single table data structure among a plurality of independent search trees."

3. Claims 1-14 and 36-49 are allowed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 15-25 and 26-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Sherman, US# 2003/0093613 A1.

As per claim 15, **Sherman** teaches “a pattern or key that is to be searched; a direct table that stores a first address location for a search tree” (see abstract and paragraph [0046]) “a plurality of pattern search control blocks that each represent a branch in the search tree; compare table that specifies at least one range compare associated with each entry” (see paragraphs [0046] and [0047]) “a plurality of leaves wherein each leaf stores a pair of patterns to compare with the search key” (see paragraphs [0074]-[0077] and [0088]).

As per claims 16-18, **Sherman** teaches “a lookup definition table that manages a tree search memory . . . define a physical memory that the tree resides . . .” (see paragraphs [0010] and [0045]-[0049]).

As per claim 19, **Sherman** teaches “a search control block; a next pattern address that point to a next pattern search control block . . . a leaf control . . . and a direct leaf” (see paragraphs [0032]-[0033]).

As per claims 20-21 and 23, **Sherman** teaches “define at least one range compare . . . the field and a length parameter . . .” (see paragraphs [0065], [0072] and [0074]).

As per claim 22, **Sherman** teaches “a leaf chaining pointer; a prefix length . . . variable user data” (see paragraphs [0075]-[0077] and [0080]).

As per claim 24, **Sherman** teaches "a pattern search control block is inserted in the search tree" (see paragraphs [0032]-[0033] and [0075]).

As per claim 25, **Sherman** teaches "a pattern search control block . . . shape defined by a width . . ." (see paragraphs [0032]-[0033] and [0045]).

As per claims 26-30, these claims are rejected on grounds corresponding to the arguments given above for rejected claims 15-29 and are similarly rejected including the following:

-- **Sherman** teaches "protocol processors . . . co-processors . . ." (see paragraph [0053] and [0082]) "random access memory . . . dynamic random access memory . . ." (see paragraphs [0032], [0037], and [0045]).

As per claims 31-32, **Sherman** teaches "a geometric hash function on the search key" (see paragraph [0010] and [0050]).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US# 2002/0099855 A1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alford W. Kindred whose telephone number is 571-272-4037. The examiner can normally be reached on Mon-Fri 9:00 am- 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alford W. Kindred
Patent Examiner
Tech Ctr. 2100